

INTERNATIONAL SEARCH REPORT

International Application No
PCT/FR2004/002057

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K39/395 A61P37/02 A61P35/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/77181 A1 (GLACET ARNAUD ET AL) 18 October 2001 (2001-10-18) page 35, line 23 - page 37, line 14; claims 1-32	1-9, 13-15
X	KUMPEL B M ET AL: "Clearance of red cells by monoclonal IgG3 anti-D in vivo is affected by the VF polymorphism of FcγRIIIa (CD16)." CLINICAL AND EXPERIMENTAL IMMUNOLOGY, vol. 132, no. 1, April 2003 (2003-04), pages 81-86, XP001193742 ISSN: 0009-9104 cited in the application the whole document	1-9, 13-15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "Z" document member of the same patent family

Date of the actual completion of the international search

31 May 2005

Date of mailing of the international search report

14 06 2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>SHINKAWA T ET AL: "The absence of fucose but not the presence of galactose or bisecting N-acetylglucosamine of human IgG1 complex-type oligosaccharides shows the critical role of enhancing antibody-dependent cellular cytotoxicity" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 278, no. 5, 31 January 2003 (2003-01-31), pages 3466-3473, XP002965857 ISSN: 0021-9258 cited in the application page 3466, left-hand column page 3471, left-hand column, last paragraph - page 3473, left-hand column, paragraph 1</p> <p>-----</p>	1-9, 13-15
A	<p>EP 0 576 093 A1 (ASSOCIATION POUR L'ESSOR DE LA TRANSFUSION SANGUINE DANS LA REGION DU) 29 December 1993 (1993-12-29) page 3, line 11 - line 37</p> <p>-----</p>	1-9, 13-15
A	<p>UMANA P ET AL: "ENGINEERED GLYCOFORMS OF AN ANTINEUROBLASTOMA IGG1 WITH OPTIMIZED ANTIBODY-DEPENDENT CELLULAR CYTOTOXIC ACTIVITY" NATURE BIOTECHNOLOGY, NATURE PUBLISHING, US, vol. 17, February 1999 (1999-02), pages 176-180, XP002921620 ISSN: 1087-0156 cited in the application page 176, left-hand column, paragraph 2 - right-hand column, paragraph 2; figure 1</p> <p>-----</p>	1-9, 13-15
A	<p>SHIELDS R L ET AL: "Lack of fucose on human IgG1 N-linked oligosaccharide improves binding to human FcgammaRIII and antibody-dependent cellular toxicity" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 277, no. 30, 26 July 2002 (2002-07-26), pages 26733-26740, XP002964542 ISSN: 0021-9258 cited in the application the whole document</p> <p>-----</p> <p style="text-align: center;">-/--</p>	1-9, 13-15

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>CARTRON GUILLAUME ET AL: "Therapeutic activity of humanized anti-CD20 monoclonal antibody and polymorphism in IgG Fc receptor FcgammaRIIIa gene" BLOOD, vol. 98, no. 11 Part 1, 16 November 2001 (2001-11-16), page 602a, XP001193741 & 43RD ANNUAL MEETING OF THE AMERICAN SOCIETY OF HEMATOLOGY, PART 1; ORLANDO, FLORIDA, USA; DECEMBER 07-11, 2001 ISSN: 0006-4971 cited in the application the whole document</p>	1-15
X	<p>----- CROWE J S ET AL: "HUMANIZED MONOCLONAL ANTIBODY CAMPATH-1H MYELOMA CELL EXPRESSION OF GENOMIC CONSTRUCTS NUCLEOTIDE SEQUENCE OF CDNA CONSTRUCTS AND COMPARISON OF EFFECTOR MECHANISMS OF MYELOMA AND CHINESE HAMSTER OVARY CELL-DERIVED MATERIAL" CLINICAL AND EXPERIMENTAL IMMUNOLOGY, OXFORD, GB, vol. 87, no. 1, 1992, pages 105-110, XP008034008 ISSN: 0009-9104 page 106, left-hand column, paragraph 2 page 107, right-hand column, line 10 - line 56</p>	1,6-10, 12-15
X	<p>----- LIFELY M R (REPRINT) ET AL: "Glycosylation and biological-activity of CAMPATH-1H expressed in different cell-lines and grown under different culture conditions" GLYCOBIOLOGY, IRL PRESS,, GB, vol. 5, no. 8, December 1995 (1995-12), pages 813-822, XP002096118 ISSN: 0959-6658 the whole document</p> <p>-----</p>	1,6-10, 12-15

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

The International Searching Authority has determined that this international application contains multiple (groups of) inventions, namely:

1. Claims 1-9 and 13-15 (in part)

Use of an anti-Rhesus D antibody for preparing a drug.

2. Claims 1-9 and 13-15 (in part), 10-12

Use of an anti-HLD-DR or anti-CD20 antibody according to claim 12 for preparing a drug.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0177181	A1	18-10-2001	
		FR 2807767 A1	19-10-2001
		AU 5485801 A	23-10-2001
		CA 2406033 A1	18-10-2001
		EP 1272527 A2	08-01-2003
		EP 1518864 A2	30-03-2005
		WO 0177181 A2	18-10-2001
		JP 2003534781 T	25-11-2003
		US 2003175969 A1	18-09-2003
EP 0576093	A1	29-12-1993	
		DE 4224357 A1	27-01-1994
		FR 2692786 A1	31-12-1993
		AT 191006 T	15-04-2000
		AU 678364 B2	29-05-1997
		AU 4419793 A	24-01-1994
		BR 9305557 A	25-03-1997
		CA 2116246 A1	06-01-1994
		DE 69328135 D1	27-04-2000
		WO 9400561 A1	06-01-1994
		FI 940811 A	21-02-1994
		HU 68624 A2	28-07-1995
		MX 9303839 A1	31-08-1994
		PL 302438 A1	25-07-1994
		US 5851524 A	22-12-1998
		ZA 9304481 A	19-01-1994